INTEGRATED SUSTAINMENT MAINTENANCE AUTOMATION ARCHITECTURE

ISM features a rapid prototype Executive Management Information System (EMIS) which integrates management of national, regional, and local sustainment maintenance management operations. An interim legacy system, the EMIS integrates and provides visibility of data received from both other legacy systems and Standard Army Management Information Systems (STAMIS).

SYSTEM DESCRIPTION

1. **Overview**. The EMIS receives and formats data from various STAMIS and legacy systems to provide Sustainment Maintenance Managers at the National, Regional, and Local ISM sites an automated tool to make more informed decisions. EMIS provides an interim capability until required ISM automated functionality is incorporated in the Global Combat Support System -- Army (GCSS-A).

2.0 **System Design**. EMIS V3.0 is a heterogeneous technical architecture which utilizes SUN UNIX processors as data collectors and data repositories at various regional and national locations. Windows NT servers are used at the LSMM, RSMM, NSMM and MACOM sites. EMIS data resides within an Oracle Relational DataBase which, through Oracle's automated data replication process, maintains consistency of data at all levels. Users can access EMIS data with standard desktop PCs.

The EMIS tool kit consists of Commercial Off The Shelf (COTS) products from Oracle that provide an expanded level of user capability. The COTS products have been structured in the EMIS system to give the user community browsing, ad hoc query and custom report generation.

2.1. **Hardware and Software**.

National Server:

Hardware:	High end Sun Server with quad
	300MHz processors
	2 GB RAM
	150 GB disk
Software:	Sun Solaris 2.5.1
	Oracle Enterprise Server 7.3.2.3
	CPLEX, AMPL
	Oracle Web Server
	Netscape
	EMIS v3.0 Web package

Regional Server:

Hardware:	Sun Ultra Sparc 2 with dual
	168MHz processors
	36 GB disk
	320 MB RAM

Software: Sun Solaris 2.5.1
Oracle Enterprise Server 7.3.2.3
CPLEX, AMPL
EMIS 3.0 Customer Software

Office Server:

Hardware: Pentium II 266 MHz
4 GB disk
128 MB RAM

Software: NT Server 4.0 Service Pack 3
Oracle Workgroup Server 7.3.2
Seagate Backup Software 7.0
Microsoft Exchange Server 5.0
PCAnywhere 8.0

Client Workstations:

Hardware: Pentium 200MHz
1.6 GB disk
32 MB RAM

Software: NT Workstation 4.0 Service Pack 3
Oracle Browser User 2.0
Oracle Browser Extended 2.0
Microsoft Exchange client 5.0
Microsoft Office 97 Small Business
EMIS Browser 3.0

2.3. **Communications**.

The EMIS communications architecture requires a distributed wide area network (WAN) to provide 24-hour communications between all nodes in the system. Communications is required among the Regional and Local ISM nodes in each of six regions, among the Regional and National ISM nodes, and among ISM nodes at MACOMs and all other ISM nodes. To support data transfers, E-mail, remote system administration, and end-user support, EMIS requires Defense Data Network (DDN) connectivity.

2.4. **Power Source**. The EMIS requires clean reliable electrical power.

2.4. **Facilities**. The EMIS facility must meet environmental and security requirements.

2.5. **Continuity of Operations Procedures (COOP).** COOP includes on-site backups of the system. Additional procedures are under development.

2.6. **Automated Interface Requirements**. The objective of the EMIS is to provide high-level management tools to plan, perform trend analysis, reduce costs, support exception management, and increase the effectiveness and efficiency of maintenance operations above Direct Support

level. This is accomplished by integrating the various logistics data files providing horizontal visibility across the maintenance and supply systems. Much of the data resides on non-integrated legacy systems which cannot depict summary or historical information. The EMIS fills this gap by interfacing with STAMIS and legacy systems in maintenance and supply via magnetic media or network connectivity, depending upon the capabilities of the data source systems. These systems include: Standard Army Maintenance System (SAMS), Automated Materiel Maintenance Management Information System (AMMMIS), SAMS-Installation/ Table of Distribution and Allowance (SAMS-I/TDA), Standard Army Retail Supply System (SARSS), SARSS-Objective (SARSS-O), the Direct Support Standard Supply System (DS4), the Standard Army Installation Logistics System (SAILS), and the Objective Supply Capability (OSC). Two large files, the Army Master Data File (AMDF) and the Central Demand Data Base (CDDB), are received monthly in electronic format from the U.S. Army Logistics Support Activity (LOGSA) and loaded into the EMIS.

(*Updated December 1998*)